

# Mineral Industry Surveys

#### For information, contact:

Joyce A. Ober, Sulfur Commodity Specialist U.S. Geological Survey 983 National Center Reston, VA 20192

Telephone: (703) 648-7717, Fax: (703) 648-7757

E-mail: jober@usgs.gov

Raymond I. Eldridge III (Data) Telephone: (703) 648-7793 Fax: (703) 648-7792 E-mail: reldridg@usgs.gov

Internet: http://minerals.usgs.gov/minerals

#### **SULFUR IN JUNE 2005**

During the month, production of recovered elemental sulfur was 734,000 metric tons, according to the U.S. Geological Survey. June production was 6% lower than that of May 2005 and 6% lower than that of June 2004. Shipments were 4% lower than those of May 2005. Producers' ending stocks for June 2005 were 172,000 tons.

Import and export data for June 2005 were not available at the time of publication and will be published in the Sulfur in July 2005 Mineral Industry Surveys along with apparent

consumption. Imports of recovered sulfur for May 2005 were estimated to be 221,000 tons; exports were 16,000 tons. Imports of sulfuric acid for May 2005 were 192,000 tons; exports were 26,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

 $\label{eq:table 1} \textbf{TABLE 1} \\ \textbf{SALIENT SULFUR STATISTICS}^1$ 

## (Thousand metric tons)

		Production		Shipments,	Ending
Period	Petroleum <sup>2</sup>	Natural gas	Total	all sources	stocks <sup>3</sup>
2004:					
January-December	7,390	1,990	9,380	9,410	XX
January-June	3,600	991	4,590	4,620	XX
June	618	164	781	780	192
July	650	173	823	813	202
August	652	172	824	838	189
September	599	155	754	757	186
October	598	163	761	765	183
November	622	167	789	771	200
December	664	167	831	846	185
2005:					
January	571	169	740	740	179
February	547	156	703	696	188
March	585	169	754	755	184
April	598	157	755 <sup>r</sup>	756	168
May	611 <sup>r</sup>	166 <sup>r</sup>	777 <sup>r</sup>	764 <sup>r</sup>	178
June <sup>p</sup>	615	118	734	731	172
Total	3,530	936	4,460	4,440	XX

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. XX Not applicable.

 $\label{eq:table 2} \text{U.S. IMPORTS OF SULFUR}^1$ 

## (Thousand metric tons and thousand dollars)

	Canac	la	Mexi	со	Total, all co	untries <sup>2</sup>
Period	Quantity <sup>e</sup>	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>
2004:						
January-December	2,010	31,300	545	28,200	2,850	76,800
January-May	880	14,400	221	13,200	1,260	36,000
May	180	2,830	57	2,620	265	6,880
June	180	2,560	49	2,440	247	5,980
July	160	2,790	54	2,550	251	7,150
August	160	2,050	35	1,780	221	5,290
September	160	2,460	49	2,650	240	6,850
October	160	1,740	51	2,170	220	4,370
November	150	2,650	31	1,240	186	5,700
December	160	2,660	55	2,200	226	5,400
2005:						
January	150	2,070	31	1,070	224	4,730
February	130	2,130	50	1,930	230	6,080
March	140	2,320	40	1,640	180	4,050
April	140	2,530	47	1,840	224	5,830
May	140	1,890	40	1,570	221	5,140
Total	700	10,900	208	8,040	1,080	25,800

<sup>&</sup>lt;sup>e</sup>Estimated.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes a small quantity from coking operations.

<sup>&</sup>lt;sup>3</sup>Subject to inventory adjustments.

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>May include other countries not listed.

<sup>&</sup>lt;sup>3</sup>Declared customs valuation.

TABLE 3  $\mbox{U.S. IMPORTS OF SULFURIC ACID}^1$ 

(Thousand metric tons and thousand dollars)

		Canada			Europe		Tota	al, all countries	2
		Sulfur			Sulfur			Sulfur	
Period	Quantity	content	Value <sup>3</sup>	Quantity	content	Value <sup>3</sup>	Quantity	content	Value <sup>3</sup>
2004:									
January-December	1,920	628 <sup>r</sup>	72,500	206	67 <sup>r</sup>	6,670	2,390	780	86,300
January-May	812	265	25,900	63	21	995	937	306	28,800
May	190	62	7,230	22	7	555	222	73 <sup>r</sup>	8,120
June	166	54	6,350	11	4 <sup>r</sup>	247	192	63	7,860
July	160	52	5,660	10	3	357	172	56	6,230
August	133	43	4,920	33	11	937	194	63	6,250
September	150	49	5,080	29	9	1,090	206	67	6,480
October	176	58 <sup>r</sup>	6,450	19	6	946	215	70	7,480
November	160	52	5,930	11	4 <sup>r</sup>	289	218	71	7,500
December	140	46	4,970	30	10	655	251	82	7,610
2005:									
January	173	57 <sup>r</sup>	5,990	30	10	840	248	81	9,490
February	174	57	6,190	(4)	(4)	18	213	70	7,820
March	183	60	7,080	32	10	759	254	83	8,590
April	191	63	7,770	10	3	629	250	82	9,660
May	158	52	6,370				192	63	7,080
Total	879	287	33,400	72	24	2,250	1,160	378	42,600

Revised. -- Zero.

Source: U.S. Census Bureau.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF SULFUR AND SULFURIC ACID}^1$ 

(Thousand metric tons and thousand dollars)

				Sulfuric acid	
	Sulf			Sulfur	
Period	Quantity	Value <sup>2</sup>	Quantity	content	Value <sup>2</sup>
2004:					
January-December	949	63,300	204	67 <sup>r</sup>	21,300
January-May	341	18,100	58	19	9,580
May	87	5,190	10	3	2,370
June	36	2,000	26	8	1,610
July		1,720	13	4	1,280
August	157	11,500	40	13	3,210
September	107	6,590	11	4	1,090
October	127	7,250	23	8	1,850
November	31	2,280	20	7	1,590
December	130	8,740	13	4	1,120
2005:					
January		1,740	13	4	1,590
February	<del></del> 72	5,040	28	9	2,230
March	41	6,270	31	10	2,270
April	94	6,010	51	17	3,280
May	16	1,850	26	8	2,560
Total	245	20,900	149	49	11,900

Revised.

Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>May include other countries not listed.

<sup>&</sup>lt;sup>3</sup>Declared customs valuation.

<sup>&</sup>lt;sup>4</sup>Less than 1/2 unit.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Declared f.a.s. (free alongside ship) valuation.

 $\label{eq:table 5} \text{U.S. CONSUMPTION OF SULFUR}^1$ 

## (Thousand metric tons)

Domestic							
Period	sources <sup>2</sup>	Imports <sup>e</sup>	Consumption				
2004:							
January-December	8,470	2,850	11,300				
January-May	3,510	1,260	4,770				
May	702	265	967				
June	744	247	991				
July		251	1,050				
August	681	221	902				
September	650	240	890				
October	638	220	858				
November	740	186	926				
December	716	226	942				
2005:							
January	718	224	942				
February	624	230	854				
March	715	180	895				
April	662 <sup>r</sup>	224	886 <sup>r</sup>				
May	748	221	969				
Total	3,470	1,080	4,550				

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>r</sup>Revised.

TABLE 6 RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES, BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT  $^{\rm l}$ 

#### (Thousand metric tons)

District and source	June 2	2005 <sup>p</sup>	May 2	005	January - J	une 2005 <sup>2</sup>	January - Ju	ine 2004 <sup>2</sup>
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	18	19	14	14	114	115	118 <sup>r</sup>	121 <sup>r</sup>
Natural gas	2	2	8	8	17	17	11	11
Total	20	21	22	22	131	133	129 <sup>r</sup>	131 <sup>r</sup>
PAD 2:	=							
Petroleum and coke	86	87	86	85	490	491	466 <sup>r</sup>	469 <sup>r</sup>
Natural gas	3	3	4	3	20	20	21 <sup>r</sup>	21 <sup>r</sup>
Total	89	90	90	89	511	511	487 <sup>r</sup>	489 <sup>r</sup>
PAD 3: <sup>3</sup>	= -							
Petroleum and coke	393	395	395 <sup>r</sup>	400 r	2,240	2,240	2,330 <sup>r</sup>	2,350 r
Natural gas	41	42	42	43 <sup>r</sup>	253	257	266 <sup>r</sup>	268 <sup>r</sup>
Total	434	437	437 <sup>r</sup>	443 <sup>r</sup>	2,500	2,500	2,600 r	2,620 r
PAD 4 and 5: <sup>4</sup>	=							
Petroleum and coke	118	116	115	107	680	661	686 <sup>r</sup>	692 <sup>r</sup>
Natural gas	72	67	111 <sup>r</sup>	103 <sup>r</sup>	645	639	694 <sup>r</sup>	691 <sup>r</sup>
California	95	87	95	87 <sup>r</sup>	439	419	524 <sup>r</sup>	524 <sup>r</sup>
Total	190	183	227 <sup>r</sup>	210 <sup>r</sup>	1,330	1,300	1,380 <sup>r</sup>	1,380 <sup>r</sup>
Grand total	734	731	777 <sup>r</sup>	764 <sup>r</sup>	4,460	4,440	4,590 <sup>r</sup>	4,620 r

 $<sup>^</sup>p Preliminary. \ ^r Revised. \\$ 

 $<sup>^{1}\</sup>mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Calculated as shipments minus exports.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>May include revisions.

<sup>&</sup>lt;sup>3</sup>Includes the U.S. Virgin Islands.

<sup>&</sup>lt;sup>4</sup>Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

# ${\it TABLE~7} \\ {\it COMPARATIVE~SULFUR~AND~SULFURIC~ACID~STATISTICS}^1 \\$

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

		2004		
	June	May	Total	total
Production	8.93 <sup>p</sup>	9.15 <sup>r</sup>	9.00 <sup>r</sup>	9.38
Shipments	8.89 <sup>p</sup>	9.00 <sup>r</sup>	8.96 <sup>r</sup>	9.41
Exports of sulfur	NA	0.19	0.59	0.95
Imports of sulfur:				
Canada	NA	1.65 <sup>e</sup>	1.69 <sup>e</sup>	2.01
Mexico	NA	0.47	0.50	0.55
Total <sup>2</sup>	NA	2.60 e	2.63 <sup>e</sup>	2.85 <sup>e</sup>
Export of H <sub>2</sub> SO <sub>4</sub>	NA	0.31	0.36	0.20
Import of H <sub>2</sub> SO <sub>4</sub> :				
Canada	NA	1.86	2.12	1.92
Europe	NA		0.17	0.21
Total <sup>2</sup>	NA	2.26	2.80	2.39
Consumption: <sup>3</sup>				
Domestic sources	NA	8.81	8.38	8.35
Imports	NA	2.60 e	2.63 <sup>e</sup>	2.85 <sup>e</sup>
Total	NA	11.41	10.99	11.21
Sulfur export values <sup>4</sup>	NA	\$116	\$85	\$67
Sulfur import values: <sup>4</sup>				
Canada	NA	\$13	\$16	\$16
Mexico	NA	\$39	\$39	\$52
Average	NA	\$23	\$24	\$27
H <sub>2</sub> SO <sub>4</sub> export values <sup>4</sup>	NA	\$98	\$80	\$105
H <sub>2</sub> SO <sub>4</sub> import values: <sup>4</sup>				
Canada	NA	\$40	\$38	\$38
Europe	NA		\$31	\$32
Average	NA	\$37	\$37	\$36

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. -- Zero.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes other countries not listed.

<sup>&</sup>lt;sup>3</sup>Because June trade data were not available, June consumption was not determined.

<sup>&</sup>lt;sup>4</sup>Average value per ton for most recent data available.